Helmo Kelis Morales Paredes

List of Publications by Year
in descending order

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72 papers	1,005 citations	623734 14 h-index	526287 27 g-index
72 all docs	72 docs citations	72 times ranked	583 citing authors

#	ARTICLE	IF	CITATIONS
1	Conservative Power Theory, a Framework to Approach Control and Accountability Issues in Smart Microgrids. IEEE Transactions on Power Electronics, 2011, 26, 664-673.	7.9	208
2	Control of Single-Phase Power Converters Connected to Low-Voltage Distorted Power Systems With Variable Compensation Objectives. IEEE Transactions on Power Electronics, 2016, 31, 2039-2052.	7.9	60
3	Direct Connection of Supercapacitorâ€“Battery Hybrid Storage System to the Grid-Tied Photovoltaic System. IEEE Transactions on Sustainable Energy, 2019, 10, 1370-1379.	8.8	55
4	Multiâ€task control strategy for gridâ€tied inverters based on conservative power theory. IET Renewable Power Generation, 2015, 9, 154-165.	3.1	48
5	Experimental Evaluation of a CPT-Based Four-Leg Active Power Compensator for Distributed Generation. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2017, 5, 747-759.	5.4	48
6	Conservative Power Theory, sequence components and accountability in smart grids. , 2010, , .		42
7	Accountability in Smart Microgrids Based on Conservative Power Theory. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 3058-3069.	4.7	40
8	Centralized Control Center Implementation for Synergistic Operation of Distributed Multifunctional Single-Phase Grid-Tie Inverters in a Microgrid. IEEE Transactions on Industrial Electronics, 2018, 65, 8018-8029.	7.9	31
9	Simplified Small-Signal Model for Output Voltage Control of Asymmetric Cascaded H-Bridge Multilevel Inverter. IEEE Transactions on Power Electronics, 2018, 33, 3509-3519.	7.9	30
10	Intelligent Expert System for Power Quality Improvement Under Distorted and Unbalanced Conditions in Three-Phase AC Microgrids. IEEE Transactions on Smart Grid, 2018, 9, 6951-6960.	9.0	25
11	Application of Conservative Power Theory to cooperative control of distributed compensators in smart grids. , 2010, , .		24
12	Decoupled Reference Generator for Shunt Active Filters Using the Conservative Power Theory. Journal of Control, Automation and Electrical Systems, 2013, 24, 522-534.	2.0	21
13	A comparative analysis of FBD, PQ and CPT current decompositions — Part I: Three-phase, three-wire systems. , 2009, , .		20
14	A comparative analysis of FBD, PQ and CPT current decompositions — Part II: Three-phase four-wire systems. , 2009, , .		20
15	Application of Conservative Power Theory to load and line characterization and revenue metering. , 2012, , .		20
16	Flexible active compensation based on load conformity factors applied to nonâ€sinusoidal and asymmetrical voltage conditions. IET Power Electronics, 2016, 9, 356-364.	2.1	20
17	Load analyser using conservative power theory. , 2013, , .		16
18	Optimized Compensation of Unwanted Current Terms by AC Power Converters Under Generic Voltage Conditions. IEEE Transactions on Industrial Electronics, 2016, 63, 7743-7753.	7.9	16

#	Article	IF	Citations
19	Trends and Constraints on Brazilian Photovoltaic Industry: Energy Policies, Interconnection Codes, and Equipment Certification. IEEE Transactions on Industry Applications, 2018, 54, 4017-4027.	4.9	16
20	Inverter control strategy for DG systems based on the Conservative power theory. , 2013, , .		15
21	Load Characterization and Revenue Metering Under Non-Sinusoidal and Asymmetrical Operation. IEEE Transactions on Instrumentation and Measurement, 2014, 63, 422-431.	4.7	15
22	Synergistic operation between battery energy storage and photovoltaic generator systems to assist management of microgrids. IET Generation, Transmission and Distribution, 2018, 12, 2944-2951.	2.5	13
23	Critical evaluation of FBD, PQ and CPT current decompositions for four-wire circuits. , 2009, , .		12
24	Three-phase four-wire circuits interpretation by means of different power theories. , 2010, , .		11
25	Adaptive saturation system for grid-tied inverters in low voltage residential micro-grids. , 2015, , .		11
26	Harmonic, reactive and unbalance compensation by means of CPT framework. , 2009, , .		9
27	Accountability and revenue metering in smart micro-grids. , 2010, , .		9
28	Evaluation of Pattern Recognition Algorithms for Applications on Power Factor Compensation. Journal of Control, Automation and Electrical Systems, 2018, 29, 75-90.	2.0	9
29	Enhanced health index for power transformers diagnosis. Engineering Failure Analysis, 2021, 126, 105427.	4.0	9
30	Shunt active compensation based on the Conservative Power Theory current's decomposition. , 2011, , .		8
31	About power factor and THDi in the smart micro-grid scenario. , 2015, , .		8
32	Comparative analysis of techniques for the limitation of compensation currents in multifunctional grid-tied inverters. International Journal of Electrical Power and Energy Systems, 2021, 126, 106574.	5.5	8
33	Vector Control Applied to Mitigate the Electromagnetic Torque Ripple in Doubly Fed Induction Generator. IEEE Transactions on Energy Conversion, 2021, 36, 2977-2986.	5.2	8
34	Flexible operation of grid-tied single-phase power converter. , 2013, , .		7
35	Electrical modelling and power quality analysis of three-phase induction furnace. , 2014, , .		7
36	Power Quality Study and Analysis of Different Arc Welding Machines. Journal of Control, Automation and Electrical Systems, 2018, 29, 163-176.	2.0	7

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37	The Influence of Voltage Referential in Power Quality Indices Evaluation. IEEE Latin America Transactions, 2008, 6, 81-88.	1.6	6
38	Modeling and Control of a Single-Phase Grid-Connected Inverter with LCL Filter. IEEE Latin America Transactions, 2021, 19, 250-259.	1.6	6
39	Conservative power theory discussion and evaluation by means of virtual instrumentation. , 2009, , .		5
40	Cooperative Control of Power Quality Compensators in Microgrids. , 2021, , .		5
41	Experimental Implementation of a Single-Phase Microgrid: A Flexible Resource for Research and Educational Activities. , 2021, , .		5
42	Design of static VAr compensator using a general reactive energy definition. , 2013, , .		4
43	Optimized compensation based on linear programming applied to distributed electronic power processors. , 2015, , .		4
44	Applying conservative power theory for analyzing three-phase X-ray machine impact on distribution systems. Electric Power Systems Research, 2015, 129, 114-125.	3.6	4
45	Selective Power Conditioning in Two-Phase Three-Wire Systems Based on the Conservative Power Theory. , 2019, , .		4
46	Adaptive Power Factor Regulation Under Asymmetrical and Non-Sinusoidal Grid Condition With Distributed Energy Resource. IEEE Access, 2021, 9, 140487-140503.	4.2	4
47	Multifunctional Current Reference Generation Strategy for Grid-tied Power Electronic Converter. Przeglad Elektrotechniczny, 2015, 1, 144-150.	0.2	4
48	Disturbing Load Classification Based on the Grey Relational Analysis Method and Load Performance Index. Journal of Control, Automation and Electrical Systems, 2020, 31, 141-152.	2.0	3
49	Selection of Voltage Referential from the Power Quality and Apparent Power Points of View. , 0, , .		2
50	Making use of virtual instrumentation for the evaluation of Std-1459 and FBD method in three-phase four-wire circuits. , 2016, , .		2
51	Multifunctional operation of current controlled VSI based on the harmonic content of PCC voltage. , 2017, , .		2
52	Low cost digital module for demonstration of modulation strategies in DC-to-AC converters. , 2017, , .		2
53	Interactive android application for education in AC-to-DC converters. , 2017, , .		2
54	Enhanced Dual-Spectrum Line Interpolated FFT with Four-Term Minimal Sidelobe Cosine Window for Real-Time Harmonic Estimation in Synchrophasor Smart-Grid Technology. Electronics (Switzerland), 2019, 8, 191.	3.1	2

#	Article	IF	Citations
55	CPT-Based Multi-Objective Strategy for Power Quality Enhancement in Three-Phase Three-Wire Systems Under Distorted and Unbalanced Voltage Conditions. IEEE Access, 2021, 9, 53078-53095.	4.2	2
56	EstratÃ©gia de SaturaÃ§Ã£o DinÃ¢mica da Capacidade de Conversores Multifuncionais Conectados Ã Rede ElÃ©trica. EletrÃ´nica De PotÃªncia, 2024, 20, 354-363.	0.1	2
57	Possible shunt compensation strategies based on Conservative Power Theory. , 2010, , .		1
58	Methodology for defining effective power factor compensation in three-phase systems. , 2015, , .		1
59	PV Microgeneration Perspective in Brazil: Approaching Interconnection Procedures and Equipment Certification. , 2017, , .		1
60	Currents' physical components (CPC): Case studies in single phase systems. , 2018, , .		1
61	3-Phase Multi-Functional Grid-Tied Inverter for Compensation of Oscillating Instantaneous Power. , 2019, , .		1
62	Critical Evaluation Of Fbd, Pq And Cpt Current Decompositions For Four-wire Circuits. EletrÃ´nica De PotÃªncia, 2009, 14, 277-286.	0.1	1
63	CompensaÃ§Ã£o Ativa Paralela Baseada na Teoria de PotÃªncia Conservativa. EletrÃ´nica De PotÃªncia, 2024, 17, 409-418.	0.1	1
64	Conservative Power Theory for Harmonic Voltage Responsibility Assignment. IEEE Latin America Transactions, 2022, 20, 443-450.	1.6	1
65	Consensus-Based Distributed Control for Improving the Sharing of Unbalanced Currents in Three-phase Three-wire Isolated Microgrids. , 2021, , .		1
66	Selective current compensators based on the Conservative Power Theory. , 2009, , .		0
67	Electrical modelling and power quality analysis of three-phase X-ray apparatus. , 2014, , .		0
68	Strategy for flexible operation of three-phase converters. , 2016, , .		0
69	Currents' physical components (CPC): Case studies in three phase systems. , 2018, , .		0
70	Proposal and implementation of a low cost single phase power meter. , 2018, , .		0
71	Flexible Control Applied On Single-phase Converters Connected To Low Voltage Distorted Grids. EletrÃ´nica De PotÃªncia, 2014, 19, 354-367.	0.1	0
72	COMPENSATION OF OSCILLATING INSTANTANEOUS POWER IN MODERN MICROGRIDS BASED ON THE CONSERVATIVE POWER THEORY. EletrÃ´nica De PotÃªncia, 2020, 25, 261-271.	0.1	0